



SEQUENCE LISTING

<110> Lebrun, Michel  
Sailland, Alain  
Freyssinet, Georges  
DeGryse, Eric

<120> Mutated 5-Enol Pyruvylshikimate-3-Phosphate Synthase,  
Gene Coding for Said Protein and Transformed Plants  
Containing Said Gene

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<140> 08/945,144

<141> 1998-01-20

<150> PCT/FR96/01125

<151> 1996-07-18

<150> FRANCE 95/08979

<151> 1995-07-19

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<170> PatentIn Ver. 2.0

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Gly Thr Val Lys Leu Pro Gly Ser Lys Ser Leu Ser Asn Arg Ile Leu

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25

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cta ctc gcc gcc ctg tcc gag ggg aca aca gtg gtt gat aac ctg ctg 146

Leu Leu Ala Ala Leu Ser Glu Gly Thr Thr Val Val Asp Asn Leu Leu

35

40

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aac agt gag gat gtc cac tac atg ctc ggg gcc ttg agg act ctt ggt 194

Asn Ser Glu Asp Val His Tyr Met Leu Gly Ala Leu Arg Thr Leu Gly

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ctc tct gtc gaa gcg gac aaa gct gcc aaa aga gct gta gtt gtt ggc 242

Leu Ser Val Glu Ala Asp Lys Ala Ala Lys Arg Ala Val Val Val Gly

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75

tgt ggt gga aag ttc cca gtt gag gat gct aaa gag gaa gtg cag ctc 290

Cys Gly Gly Lys Phe Pro Val Glu Asp Ala Lys Glu Glu Val Gln Leu

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Phe Leu Gly Asn Ala Gly Thr Ala Met Arg Pro Leu Thr Ala Ala Val

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gct ctt ggg gat gtg gag att gaa atc att gat aaa tta atc tcc att	626
Ala Leu Gly Asp Val Glu Ile Glu Ile Ile Asp Lys Leu Ile Ser Ile	
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Pro Tyr Val Glu Met Thr Leu Arg Leu Met Glu Arg Phe Gly Val Lys	
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aaa tac aag tcc cct aaa aat gcc tat gtt gaa ggt gat gcc tca agc	770
Lys Tyr Lys Ser Pro Lys Asn Ala Tyr Val Glu Gly Asp Ala Ser Ser	
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Ala Ser Tyr Phe Leu Ala Gly Ala Ala Ile Thr Gly Gly Thr Val Thr	
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Val Glu Gly Cys Gly Thr Thr Ser Leu Gln Gly Asp Val Lys Phe Ala	
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Val Thr Val Thr Gly Pro Pro Arg Glu Pro Phe Gly Arg Lys His Leu	
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Lys Ala Ile Asp Val Asn Met Asn Lys Met Pro Asp Val Ala Met Thr	
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Leu Ala Val Val Ala Leu Phe Ala Asp Gly Pro Thr Ala Ile Arg Asp	
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Val Ala Ser Trp Arg Val Lys Glu Thr Glu Arg Met Val Ala Ile Arg	
355 360 365	

acg gag cta acc aag ctg gga gca tct gtt gag gaa ggg ccg gac tac 1154  
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 Cys Ile Ile Thr Pro Pro Glu Lys Leu Asn Val Thr Ala Ile Asp Thr  
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 Ser Glu Asp Val His Tyr Met Leu Gly Ala Leu Arg Thr Leu Gly Leu  
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 Ser Val Glu Ala Asp Lys Ala Ala Lys Arg Ala Val Val Val Gly Cys  
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 Gly Gly Lys Phe Pro Val Glu Asp Ala Lys Glu Glu Val Gln Leu Phe  
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 Leu Gly Asn Ala Gly Thr Ala Met Arg Pro Leu Thr Ala Ala Val Thr  
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Ala	Ala	Gly	Gly	Asn	Ala	Thr	Tyr	Val	Leu	Asp	Gly	Val	Pro	Arg	Met	115	120	125
Arg	Glu	Arg	Pro	Ile	Gly	Asp	Leu	Val	Val	Gly	Leu	Lys	Gln	Leu	Gly	130	135	140
Ala	Asp	Val	Asp	Cys	Phe	Leu	Gly	Thr	Asp	Cys	Pro	Pro	Val	Arg	Val	145	150	155
Asn	Gly	Ile	Gly	Gly	Leu	Pro	Gly	Gly	Lys	Val	Lys	Leu	Ser	Gly	Ser	165	170	175
Ile	Ser	Ser	Gln	Tyr	Leu	Ser	Ala	Leu	Leu	Met	Ala	Ala	Pro	Leu	Ala	180	185	190
Leu	Gly	Asp	Val	Glu	Ile	Glu	Ile	Ile	Asp	Lys	Leu	Ile	Ser	Ile	Pro	195	200	205
Tyr	Val	Glu	Met	Thr	Leu	Arg	Leu	Met	Glu	Arg	Phe	Gly	Val	Lys	Ala	210	215	220
Glu	His	Ser	Asp	Ser	Trp	Asp	Arg	Phe	Tyr	Ile	Lys	Gly	Gly	Gln	Lys	225	230	235
Tyr	Lys	Ser	Pro	Lys	Asn	Ala	Tyr	Val	Glu	Gly	Asp	Ala	Ser	Ser	Ala	245	250	255
Ser	Tyr	Phe	Leu	Ala	Gly	Ala	Ala	Ile	Thr	Gly	Gly	Thr	Val	Thr	Val	260	265	270
Glu	Gly	Cys	Gly	Thr	Thr	Ser	Leu	Gln	Gly	Asp	Val	Lys	Phe	Ala	Glu	275	280	285
Val	Leu	Glu	Met	Met	Gly	Ala	Lys	Val	Thr	Trp	Thr	Glu	Thr	Ser	Val	290	295	300
Thr	Val	Thr	Gly	Pro	Pro	Arg	Glu	Pro	Phe	Gly	Arg	Lys	His	Leu	Lys	305	310	315
Ala	Ile	Asp	Val	Asn	Met	Asn	Lys	Met	Pro	Asp	Val	Ala	Met	Thr	Leu	325	330	335
Ala	Val	Val	Ala	Leu	Phe	Ala	Asp	Gly	Pro	Thr	Ala	Ile	Arg	Asp	Val	340	345	350
Ala	Ser	Trp	Arg	Val	Lys	Glu	Thr	Glu	Arg	Met	Val	Ala	Ile	Arg	Thr	355	360	365

Glu Leu Thr Lys Leu Gly Ala Ser Val Glu Glu Gly Pro Asp Tyr Cys  
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Ile Ile Thr Pro Pro Glu Lys Leu Asn Val Thr Ala Ile Asp Thr Tyr  
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Asp Asp His Arg Met Ala Met Ala Phe Ser Leu Ala Ala Cys Ala Glu  
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aac agt gag gat gtc cac tac atg ctc ggg gcc ttg agg act ctt ggt 194  
 Asn Ser Glu Asp Val His Tyr Met Leu Gly Ala Leu Arg Thr Leu Gly  
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ctc tct gtc gaa gcg gac aaa gct gcc aaa aga gct gta gtt gtt ggc 242  
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tgt ggt gga aag ttc cca gtt gag gat gct aaa gag gaa gtg cag ctc 290





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Glu	Val	Leu	Glu	Met	Met	Gly	Ala	Lys	Val	Thr	Trp	Thr	Glu	Thr	Ser		
		290					295					300					
gta	act	gtt	act	ggc	cca	ccg	cgg	gag	cca	ttt	ggg	agg	aaa	cac	ctc	962	
Val	Thr	Val	Thr	Gly	Pro	Pro	Arg	Glu	Pro	Phe	Gly	Arg	Lys	His	Leu		
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Leu	Ala	Val	Val	Ala	Leu	Phe	Ala	Asp	Gly	Pro	Thr	Ala	Ile	Arg	Asp		
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gtg	gct	tcc	tgg	aga	gta	aag	gag	acc	gag	agg	atg	gtt	gcg	atc	cgg	1106	
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400					405					410				415			
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Glu	Val	Pro	Val	Thr	Ile	Arg	Asp	Pro	Gly	Cys	Thr	Arg	Lys	Thr	Phe		
				420					425					430			
ccc	gac	tac	ttc	gat	gtg	ctg	agc	act	ttc	gtc	aag	aat	taa			1340	
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Ser Glu Asp Val His Tyr Met Leu Gly Ala Leu Arg Thr Leu Gly Leu  
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Ser Val Glu Ala Asp Lys Ala Ala Lys Arg Ala Val Val Val Gly Cys  
65 70 75 80

Gly Gly Lys Phe Pro Val Glu Asp Ala Lys Glu Glu Val Gln Leu Phe  
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Ala Ala Gly Gly Asn Ala Thr Tyr Val Leu Asp Gly Val Pro Arg Met  
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Arg Glu Arg Pro Ile Gly Asp Leu Val Val Gly Leu Lys Gln Leu Gly  
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Ala Asp Val Asp Cys Phe Leu Gly Thr Asp Cys Pro Pro Val Arg Val  
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Ile Ser Ser Gln Tyr Leu Ser Ala Leu Leu Met Ala Ala Pro Leu Ala  
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Leu Gly Asp Val Glu Ile Glu Ile Ile Asp Lys Leu Ile Ser Ile Pro  
195 200 205

Tyr Val Glu Met Thr Leu Arg Leu Met Glu Arg Phe Gly Val Lys Ala  
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Glu His Ser Asp Ser Trp Asp Arg Phe Tyr Ile Lys Gly Gly Gln Lys  
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Tyr Lys Ser Pro Lys Asn Ala Tyr Val Glu Gly Asp Ala Ser Ser Ala

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Glu Gly Cys Gly Thr Thr Ser Leu Gln Gly Asp Val Lys Phe Ala Glu					
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Val Leu Glu Met Met Gly Ala Lys Val Thr Trp Thr Glu Thr Ser Val					
	290		295		300
Thr Val Thr Gly Pro Pro Arg Glu Pro Phe Gly Arg Lys His Leu Lys					
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Ala Ile Asp Val Asn Met Asn Lys Met Pro Asp Val Ala Met Thr Leu					
	325		330		335
Ala Val Val Ala Leu Phe Ala Asp Gly Pro Thr Ala Ile Arg Asp Val					
	340		345		350
Ala Ser Trp Arg Val Lys Glu Thr Glu Arg Met Val Ala Ile Arg Thr					
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Glu Leu Thr Lys Leu Gly Ala Ser Val Glu Glu Gly Pro Asp Tyr Cys					
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Ile Ile Thr Pro Pro Glu Lys Leu Asn Val Thr Ala Ile Asp Thr Tyr					
385		390		395	400
Asp Asp His Arg Met Ala Met Ala Phe Ser Leu Ala Ala Cys Ala Glu					
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Val Pro Val Thr Ile Arg Asp Pro Gly Cys Thr Arg Lys Thr Phe Pro					
	420		425		430
Asp Tyr Phe Asp Val Leu Ser Thr Phe Val Lys Asn					
	435		440		